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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,928	05/31/2005	Kazuhiro Yamada	MATS-0060	2470
37013 7590 07/22/2010 ROSSI, KIMMS & McDOWELL LLP. 20609 Gordon Park Square, Suite 150 Ashburn, VA 20147				
EXAMINER				
MA, CALVIN				
ART UNIT		PAPER NUMBER		
2629				
NOTIFICATION DATE		DELIVERY MODE		
07/22/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptomail@rkmlegalgroup.com

Office Action Summary

Application No.

10/536,928

Applicant(s)

YAMADA, KAZUHIRO

Examiner

CALVIN C. MA

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 5, 7, 9, 10, 15 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 5, 7, 9-10, 15-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5, 7, 9-10, and 15-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US Pub: 2003/0052841) in view of Lee et al. (US Patent: 6,693,609) and Weitbruch et al. (US Patent: 6,473,464).

As to claims 1 and 9, Tanaka teaches a method as well as a device of displaying an image in a display screen, the method comprising the steps of (i.e. the plasma display having variety of subfield, SF1, SF2) (see Table 2, Fig. 6):

displaying the image among a plurality of fields (i.e. the plasma image is shown which plurality of frames to form the dynamic video effect as demonstrated in figure 4) with each subfield having either an emitted state value of "1" or a non-emitted state value of "0," displaying wherein each field displays one gradation;

making an average value of gradation levels of each of the plurality of pieces of emission pattern information of the plurality of subfields, equal to one of the gradation levels for each field level (i.e. the subfield coding circuit interact with LUT to select the

correct pattern to display which is based on the gradation level for the indicated display properties) (see Fig. 6, [124-131]) and

making an average emission rate (APL), which is an average value of the plurality of pieces of emission pattern information of the same subfield among the plurality of groups of the plurality of subfields for each of the subfields (i.e. since the total brightness of the plasma display is a result of all of the subfield in the pixel performing together, the APL is a range of possible value in a continuum of actual display output factors which is tracked by the display system to insure the correct gradation conversation yield the correct subfield setting) (see Fig. 6, [126-129]);.

However Tanaka does not explicitly teach each made of a plurality group of a plurality of subfields weighted with different brightness levels and each of the groups of the plurality of subfields having a plurality of pieces of emission pattern information, Lee teaches each made of a plurality group of a plurality of subfields weighted with different brightness levels and each of the groups of the plurality of subfields having a plurality of pieces of emission pattern information (i.e. the optimization method of Lee creates type of subfield group in the plurality of subfield that represent each of the possible gray scale pattern forming a group, where the group of subfield are together changed to improve noise response by calculating the matching noise level with the threshold level, in this way the plurality of plasma field is further organized into group of subfield representing the grayscale value due to the light emission pattern that results) (see Lee, Fig. 6-8, Col. 9 Line 20-Col. 10 Line 43).

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have applied the gray level noise prevention system of Lee in the overall plasma driving system of Tanaka in order to minimize contour noise and improve the overall level of display quality (see Lee, Col. 9, Lines 28-40).

Tanaka does not explicitly teaches with brightness weight smaller than maximum brightness weight of a subfield in which an average emission rate thereof is not zero, equal to or greater than 0.75, Weitbruch teaches in which an average emission rate thereof is not zero, is equal to or greater than 0.75 (i.e. the picture correction algorithm of Weitbruch shows that the video frame in figure 1 where there is a continuum of brightness rate which is adapted with pixel shift in this way the average emission rate clearly is greater than 0.75 in some pixel area of the pictures) (see Fig. 1, 2 and 9, Col 5, Lines 30-60).

Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the dynamic pixel shifting technique of Weitbruch in the PDP driving system of Tanaka and Lee, in order to create a motion adjustment compensation for the video picture to provide better display performance (see Weitbruch Col. 2, Lines 10-30).

As to claims 2 and 10, Tanaka teaches wherein a given level of gradation is displayed by timewise changing each of the plurality of pieces of emission pattern information, for one pixel (i.e. since the display of image on a plasma display with

subfields is a composition of time based change in a given pixel the level of gradation is naturally a result of timewise changing of the pattern of fields in each pixel which is stored in LUT) (see Fig. 6).

As to claims 5 and 7 Weitbruch teaches wherein a given level of gradation is displayed by spatially arranging each of the plurality of pieces of emission pattern information, for a plurality of adjacent pixels (i.e. the pixel adjustment based on pixel shifting presupposes the emissions pattern being spatially arranged by given level of gradation to create the necessary image improvement) (see Fig. 7-9, Col 5, Lines 30-60).

As to claims 15-16 Tanaka teaches wherein a given level of gradation is displayed by spatially arranging each of the plurality of pieces of emission pattern information, for a plurality of adjacent pixels(i.e. the APL is translated into have a '1' and '0' patterned displayed on the entire plasma display so that the overall gradation is outputted and thus the pattern information is also encapsulated in the LUT which is outputted to the actual display itself) (see Fig. 5, [132-142]).

Response to Arguments

3. Applicant's arguments with respect to claims 1-2, 5, 7, 9-10, and 15-16 have been considered but are moot in view of the new ground(s) of rejection.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Calvin Ma whose telephone number is (571)270-1713. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571)272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Calvin Ma
July 17, 2010

/Chanh Nguyen/
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